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Patent

CLEAN VERSION OF CHANGES

In the Claims

Kindly amend Claims 36-41, 43, 48-50, 54, 57-58, 60-62, and 64 as follows.

36(Twice Amended). An absorbent article having a length and a width, a front area and a rear area, and a central area between the front and rear areas, said absorbent article comprising:

- Del  
D11
- C1
- (a) a liquid-permeable layer, which is turned toward a body of a wearer during use of the absorbent article;
  - (b) a liquid-impermeable layer, which is turned away from such body of such wearer during use of the absorbent article;
  - (c) an undulating layer disposed between the liquid permeable layer and the liquid impermeable layer and extending between the front area and the rear area;
  - (d) a liquid distribution layer disposed between the undulating layer and the liquid-impermeable layer, and extending between the front area and the rear area, said liquid distribution layer comprising at least one web of sheet material, said at least one web of sheet material having openings therein formed after fabrication of the at least one web of sheet material; and
  - (e) a liquid storage layer between the liquid-impermeable layer and the liquid distribution layer, said liquid distribution layer transferring fluid to at least part of the liquid storage layer located in one or both the front area and the rear area of the absorbent article,

said undulating layer comprising elongate undulations defining elongate open flow channels between said undulating layer and underlying and overlying elements of said absorbent article which are in contact with said undulating layer.

C2  
D1  
37(Amended). An absorbent article as in Claim 36, said openings in said at least one web of sheet material being mechanically-formed openings formed subsequent to formation of said at least one web of sheet material.

38(Twice Amended). An absorbent article as in Claim 36 wherein the undulating layer selectively facilitates transfer of fluid longitudinally, along the length of said absorbent article, into one or both the front area and the rear area of the absorbent article.

C3  
39(Twice Amended). An absorbent article as in Claim 36, the undulations being arranged so as to form elongate and generally continuous transport channels extending along the length of said absorbent article.

40(Twice Amended). An absorbent article as in Claim 36 wherein the undulating layer comprises an undulating strip of material defining elongate undulations therein, connected at spaced locations to said liquid distribution layer which bears the openings.

41(Amended). An absorbent article as in Claim 39 wherein the undulating layer is sufficiently colored by pigment additive that such pigment additive prevents visible discernment of the liquid storage layer.

C4  
43(Amended). An absorbent article as in Claim 36, said liquid storage layer extending from the central area into the front area and the rear area, the liquid storage layer having a higher liquid retention capacity per unit area of said absorbent article in the respective one or both of the front area or the rear area than in the central area.

C5  
48(Amended). An absorbent article as in Claim 36, the liquid distribution layer comprising fibrous compositions about said openings, wherein the openings in the liquid distribution layer have discharge ends at a major surface of said liquid storage layer, for transferring fluid, such funnel-shaped openings tapering inwardly toward the liquid storage layer.

49(Twice Amended). An absorbent article having a length and a width, a front area and a rear area, and a central area between the front and rear areas, said absorbent article comprising:

- C6
- (a) a liquid-permeable layer disposed toward a body of a user during use of the absorbent article;
  - (b) a liquid-impermeable layer disposed away from such body of such user during use of the absorbent article;
  - (c) a liquid distribution layer, which comprises discrete passages therethrough, and zones of relatively greater fiber density of said liquid distribution layer adjacent said discrete passages, the relatively greater fiber density promoting movement of liquid toward the liquid-impermeable layer, said liquid distribution layer being disposed between the liquid-permeable layer and the liquid-impermeable layer; and

- (d) a liquid storage layer disposed between the liquid-impermeable layer and the liquid distribution layer, said liquid distribution layer transferring fluid to at least part of the liquid storage layer of the absorbent article.
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50(Amended). An absorbent article, comprising:

- C7
- (a) a liquid-permeable layer disposed toward a body of a user during use of the absorbent article;
  - (b) a liquid-impermeable layer disposed away from such body of such user during use of the absorbent article;
  - (c) a liquid distribution layer, which comprises discrete passages therethrough, said discrete passages facilitating movement of liquid toward the liquid-impermeable layer; and
  - (d) a liquid storage layer disposed between the liquid-impermeable layer and the liquid distribution layer, said liquid distribution layer transferring liquid to the liquid storage layer,

said liquid distribution layer comprising an undulating strip of material and an additional strip of material, said passages being arranged in edges of the additional strip of material, said edges being folded inward such that said edges are located under the undulating strip of material.

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C8

54(Amended). An absorbent article as in Claim 49, the liquid storage layer extending from the front area to the rear area of said absorbent article, the liquid storage layer having a higher liquid retention capacity per unit area of said absorbent article in the respective at least one of the front area and the rear area of the absorbent article, than in the central area.

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57(Amended). An absorbent article as in Claim 49 wherein the passages have feet at tapering ends of said passage, said feet being in contact with the liquid storage layer at an outer surface of the liquid storage layer.

C9

58(Amended). An absorbent article as in Claim 49, the passages of the liquid distribution layer being disposed exclusively in one or both of the front area and the rear area of the absorbent article whereby the central area is devoid of the feet.

60(Amended). An absorbent article as in Claim 50 wherein the undulating strip of material contains a colorant.

61(Amended). An absorbent article having a front area, a rear area, and a central area between the front area and the rear area, said absorbent article comprising:

C10

- (a) a liquid-permeable layer disposed toward a body of a wearer during use of the absorbent article;
- (b) a liquid-impermeable layer disposed away from the body of such wearer during use of the absorbent article;
- (c) a fibrous liquid distribution layer, which promotes movement of liquid toward the liquid-impermeable layer, said liquid distribution layer being disposed between the liquid-permeable layer and the liquid-impermeable layer; and
- (d) a liquid storage layer disposed between the liquid-impermeable layer and the liquid distribution layer,

said liquid distribution layer comprising areas having passages defining openings for transferring liquid, such passages having feet at ends of such passages, said feet contacting the liquid storage layer, and forming areas, between the feet, of separation between the liquid distribution layer and the liquid storage layer where the liquid distribution layer and the liquid storage layer are spaced from each other, whereby said areas of separation attenuate reverse wicking of liquid from the liquid storage to the liquid distribution layer.

62(Amended). An absorbent article having a front area, a rear area, and a central area arranged between the front area and the rear area, said absorbent article comprising:

- C10
- (a) a liquid-permeable layer disposed toward a body of a wearer during use of the absorbent article;
  - (b) a liquid-impermeable layer disposed away from such body of such wearer during use of the absorbent article;
  - (c) a liquid distribution layer disposed between the liquid-permeable layer and the liquid-impermeable layer, said liquid distribution layer including at least first and second take-away layers each having funnel-shaped openings defining discrete passages therethrough which promote movement of liquid away from the liquid-permeable layer; and
  - (d) a liquid storage layer disposed between the liquid-impermeable layer and the liquid distribution layer, wherein respective openings of said first take-away layer and said second take-away layer of said liquid distribution layer are spaced laterally from each other, with layer-to-layer surface interface between a said opening on said first take-away layer and any said opening on said second take-away layer, thus preventing a direct, straight-line path for reverse wicking of fluid, whereby spacing of respective openings of said first take-away layer and said second take-

C10

away layer of said liquid distribution layer contributes to the prevention of liquid being transferred back from the liquid storage layer to the liquid distribution layer.

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C11

64. An absorbent article as in Claim 63, said liquid distribution layer further comprising an undulating strip of material disposed between the liquid-permeable layer and said uppermost layer, said undulating strip of material containing colorant.

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Kindly add the following new Claim 66.

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C12

66(New). An absorbent article as in Claim 49 wherein said liquid distribution layer comprises discrete passages defining openings (30) extending therethrough, said discrete passages tapering inwardly toward the liquid storage layer and facilitating the absorbent article (10) in transferring liquid from the liquid distribution layer (22) toward the liquid storage layer (24).

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